

Table D2: Comparison Study Objectives and Issues

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			Obj 1	Obj 2	Obj 3a	Obj 3b	Obj 3c	Obj 3d	CObj 1	CObj 2	CObj 3	CObj 4	CObj 5	CObj 6	CObj 7	CObj 8	CObj 9
			Impact of planned housing and economic growth on the reliability and resilience of national and regional corridors	Managing demand and making best use of the transport network	Address the growth and regeneration challenges	Minimise risk of local commuting flows using the national road network	Encourage sustainable travel	Minimise the level of carbon emissions	Improve journey time reliability on strategic and inter-urban routes	Maintain or improve door-to-door journey times on strategic and inter-urban routes	M5 - maintain operational efficiency	Ensure usage of transport network is appropriate to the route's function	Minimise the wider network effects of planned maintenance and incidents on the strategic transport network	Reduce the need to travel	Ensure existence of real mode choice (promote/prioritise PT, cycling and walking)	Ensure transport schemes support air quality improvements on the strategic transport network	Ensure transport schemes support safety and security improvements on strategic transport network

Option Assessment Process

Table D2.1: General Study Area

Current Issues																		
1	Use of M5 for trips between Wellington, Taunton and Bridgwater - issue of 'junction hopping'.	Use of M5 for non-strategic, short, inter-urban trips. Usage will increase as congestion on parallel A38 and in Taunton and Bridgwater increases.	✓			✓				✓		✓	✓					
2	Many bus services are local authority supported.	Makes it difficult to improve bus services without increase revenue support. Also reflects low demand for public transport						✓								✓		
3	Seasonal and weekend fluctuation in traffic and rail passenger volumes due to tourism	Increased demand for the strategic transport network due to tourism. Impacts of congestion, journey time reliability and trips diverting from the strategic network, especially when incidents occur on M5 or A303.	✓	✓		✓			✓		✓	✓						
4	Perception of travel by sustainable modes. Many people are unaware of the various options available	Increases use of private car for travel affecting uses of the road network						✓							✓			
5	Effect of economic downturn on development proposals and their implementation date.	Dampens transport demand which would otherwise emanate from new developments. Economic downturn impacts on availability of funding for schemes and attractiveness of development to developers.			✓													
6	Low proportion of journeys by public transport	Reflects low demand for public transport and indicates lack of established culture of public transport use. Low base for public transport journeys may make behavioural change more difficult. Few bus routes are operated on a commercial basis. Many services require financial support, hence improving frequency or hours of operation of bus services will often require additional revenue support.						✓							✓			
7	Availability of car parking and cycle parking at railway stations	Current car parking and cycle parking provision at Taunton and Bridgwater railway stations is limited.						✓							✓			
8	Rail issues of crowding on peak hour trains	Ability of rail to cater for increased demand. Impacts on perception of rail as a suitable alternative mode.		✓				✓							✓			
9	Decision making pressures: long term strategy vs. short termism. I.e. need for car parking revenue or development going ahead to stimulate economy	Potentially promotes the use of cars increasing demand for the road network		✓	✓							✓						
10	Bus journey times between Bridgwater, Taunton and Wellington are poor and routes are generally not direct. Lack of bus routes along A358. Routing is often historic and does not reflect the demands for new destinations and purpose	Affects attractiveness of bus transport						✓		✓					✓			
11	Buses get caught up in congestion	Impacts on journey time and service reliability for buses and hence attractiveness to users.						✓	✓	✓								
12	Emergency closure of M5 due to incidents results in diversions onto A38 and other local roads	Direct impact on M5 and resultant congestion caused on alternative routes											✓					
13	A38 road safety issues	A38 is a strategic route and road casualty reduction is government target.																✓

Affordability

Strategy Development

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14	Sunday maintenance works on rail network	Impacts on attractiveness of rail for weekend and summer tourism trips.					✓						✓					
15	Limited local rail network and services	Restricts the ability of rail network to be used for local journeys.		✓			✓								✓			
16	Availability of funding for expensive schemes e.g. MSB or developer contributions	Need for expenditure on transport to enable economic and housing growth to happen			✓													
17	Environmentally sensitive areas within and around Bridgwater, Taunton and Wellington	The need to preserve and enhance biodiversity, cultural heritage and landscapes could impact on changes to and the use of the strategic network.			✓													
18	Distance between rail station, bus station and town centre in both Taunton and Bridgwater.	Inefficient interchange between transport modes, which reduces the attractiveness of public transport. Rail is a less attractive option accessing the town centres.					✓											
Future Issues																		
19	Need for critical mass for mixed use opportunities and for public transport commercial viability	Reduces the demand for travel and allows for public transport to be made more attractive			✓									✓				
20	Mismatch between planned housing and employment could result in increased out commuting	Risk of out commuting increasing demand for the strategic network			✓						✓							
21	Attractiveness of Bristol and Exeter as alternative destinations	Danger that housing growth will serve Bristol and Exeter rather than Bridgwater, Taunton and Wellington resulting in increased use of strategic network.			✓						✓							
22	M5 acts as a bypass to the three towns	M5 is susceptible to increase use as a local bypass as traffic congestion increases in the towns.		✓					✓	✓	✓							
23	M5 - maintaining operational efficiency	The M5 is the strategic network and must be kept safe and reliable.			✓						✓							
24	Affordability and realism of development aspirations	Scale and location of developments impacts on the demand for travel and usage of local, regional and national transport networks		✓														
25	Attractiveness of motorway junctions as locations for development	Increased volume of non-strategic trips using motorway junctions and on M5		✓							✓							
Current Opportunity																		
1	The scale of planned development provides an opportunity to create critical mass to make public transport more viable	Potential to enhance public transport and reduce the demand for car travel					✓								✓			
2	Study area is served by 3 major transport corridors in parallel alignment: M5, A38 and rail corridor. Opportunity	Opportunity to get transport balance right between the three corridors to maximise efficiency and reduce congestion		✓							✓	✓			✓			
3	Great Western and Cross Country Rail franchises are renewed in 2016	Opportunity to incorporate changes to the service requirements		✓				✓	✓						✓			
4	New developments present an opportunity to create sustainable transport links	Opportunity to reduce the need to travel and to provide more sustainable modes			✓		✓								✓			

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Option Assessment Process

Table D2.2: Bridgwater and surrounding area

Current Issues																	
1	Current road network capacity issues on A38/A39.	Congestion on A38/A39 in Bridgwater increases journey times and journey time variability through the town and will make the M5 a more attractive route for travel between north and south Bridgwater. This issue will increase with developments such as of NE Bridgwater.		✓						✓	✓					✓	✓
2	A38 in town centre severs the residential areas of Eastover, the college and the railway station from the town centre making access by cycling and walking difficult	The severance results in an increase in the use of the car to reach facilities/services and jobs impacting on A38/A39 congestion. The severance makes rail station less attractive as an option, increasing use of car.		✓				✓				✓					✓
3	A38 through North Petherton has constrained capacity and causes severance of the village	Negatively impacts on journey times along A38 between Taunton and Bridgwater making the route less attractive than the M5.		✓				✓		✓	✓						✓
4	Traffic congestion on A38 between Bridgwater and Taunton causes delay to bus services and makes cycling unpleasant. - North Petherton and Highbridge	Makes alternative modes on A38 unpleasant.		✓					✓	✓							✓
5	Spatial separation of residential and employment areas in Bridgwater	Increases the demand for travel within Bridgwater impacting on traffic volumes and on congestion points such as A38 and A38/A39 junction. There will be a knock-on impact on M5 (see Issue 2)	✓		✓											✓	
Future Issues																	
6	Housing and transport issues relating to the construction and operation of Hinkley Point power station	Hinkley Point results in a short term issue of increasing travel demand through Bridgwater - the scale of impact will depend upon the origin of the workforce, the transport measures put in place and the requirement for supporting facilities and services. Workforce from outside the immediate local area will need to access Hinkley Point via the strategic transport networks. On completion of construction in 2017 the workforce for Hinkley Point significantly reduces resulting in a legacy issue for the infrastructure and facilities provided for the construction phase.	✓	✓	✓											✓	
7	Future increased transport demand for J23 and J24 as a result of new developments.	Large number of new developments will potentially impact on J23 and J24 potentially causing a capacity issue.			✓						✓						
8	The need to match skills of Bridgwater residents to meet aspirations for employment. The likely effectiveness of interventions to improve skills such as 'Building Better Schools for the Future' and Local Labour Agreements	Mismatch between skills required for jobs and the skills of residents may attract workforce from outside Bridgwater impacting on use of strategic road network.			✓											✓	
9	Skills match between existing residents and the aspiration for higher quality employment in Bridgwater	If higher skilled jobs are created before the existing population has the necessary skills then new development will draw in workforce from further afield impacting on strategic transport network			✓											✓	

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Option Assessment Process

Table D2.3: Taunton

Current Issues																			
1a	Capacity issue at Creech Castle junction which will worsen with Monkton Heathfield development. This could impact on the ability for Monkton Heathfield to be developed beyond the current 1000 house consent.	Key junction for access into Taunton from the M5 and A38 north. Key access point to Monkton Heathfield development. Trips may find alternative route to M5 or into Taunton.	✓		✓					✓	✓	✓				✓	✓		
1b	Current junction layout causes severance of school catchment area with accident issue for school children.				✓														
2	M5 J25 capacity issue during peak periods. This will worsen with proposed developments.	Impacts on access into Taunton from the M5 including bus and cycle. Use of alternative routes to avoid J25			✓			✓		✓	✓					✓	✓		
3	A38 south Taunton - capacity issues	Result in reassignment of trips to M5 to avoid congestion in Taunton.	✓	✓							✓	✓							
4	Congestion on A38 approaches into Taunton	Combined affect of congestion on both approaches into Taunton could result in changes in destination to outside of Taunton resulting in increased trips on the strategic network.				✓	✓								✓				
5	Air Quality Management Area East Reach	Need to improve air quality may require redistribution of trips to other parts of the highway network.		✓					✓						✓		✓		
6a	6a. Third Way has received major scheme funding from the DfT and construction is about to commence. Third Way opens up potential for Town Centre improvements	Third Way opens up the potential for Town Centre improvements that will provide facilities and services to support housing growth. Without the town centre improvements residents may look further afield for facilities e.g. Exeter or Bristol increasing the demand for the strategic trips.			✓					✓	✓								
6b	6b. Northern Inner Distributor Road may not get major scheme funding. Scheme is currently with SW Councils to be submitted to DfT for final approval.	Without the Northern Inner Distributor Road major economic development in Taunton cannot go ahead in the most sustainable location. Pressure for development in less sustainable locations such as edge of town sites with increased car travel. The scheme provides improved access to the rail station.			✓					✓	✓								
Future Issues																			
7	7. Number of brown field sites in Taunton requiring redevelopment	Redevelopment needs to be supported by appropriate transport otherwise could result in congestion and crowding.	✓	✓	✓					✓	✓				✓	✓			
8	Potential for road improvements affected by presence of protected species - lesser horseshoe bats	Reduced ability to gain planning permission for road improvements associated with developments in north Taunton						✓							✓	✓			
9	Development and enhancement of the river environment	Improvements in cycling and walking could impact on the wildlife and the wider river environment corridor. Mitigation will be needed.			✓														
10	Proposed development at Comeytrowe	Options for transport access are limited and, if development goes ahead, without appropriate transport provision the town-wide network will be affected, resulting in direct impact on local roads and an indirect impact on M5	✓	✓	✓			✓							✓	✓			

Environmental feasibility

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<i>Current Opportunities</i>																		
1	Current higher than average % of trips by cycling	Established use of cycling in town. Increased potential for smarter choices options being attractive to residents. Indirect benefit for strategic network.						✓										✓
2	Relatively self contained and compact nature of Taunton	Potential to increase use of smarter choices options for trips with Taunton, reducing demand for private car. Indirect benefit for strategic network						✓						✓	✓			
<i>Future Opportunities</i>																		
3	Developments at Monkton Heathfield and Comeytrowe proposed as mixed-use	Potential to reduce trip distance and the demand for travel.			✓									✓				
4a	Third Way	Allows access and traffic capacity to key town centre development sites for facilities which are required in association with town-wide housing growth. An improved town centre will reduce the need to travel outside of Taunton for services.			✓			✓						✓	✓			
4b	Northern Inner Distributor Road	Opens up access and road capacity for brownfield redevelopment of sites in Taunton and creates an alternative east-west route.			✓			✓						✓	✓			
5	Developer contributions for transport improvements	Mitigates the transport impact of new developments.			✓				✓	✓					✓			
Affordability																		

